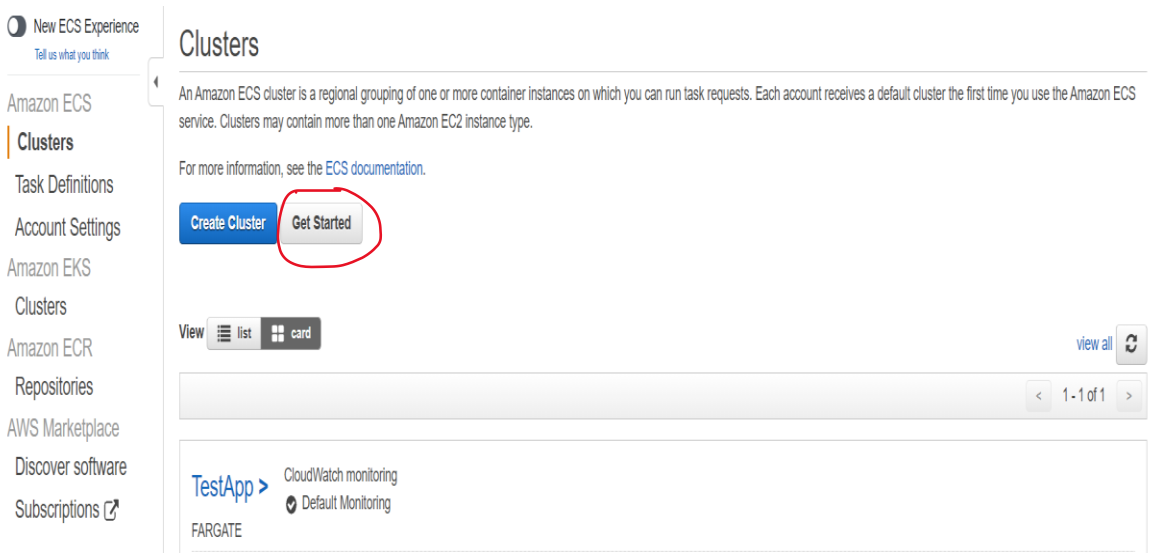
HOSTING A DASHBOARD APPLICATION IN AWS FARGATE

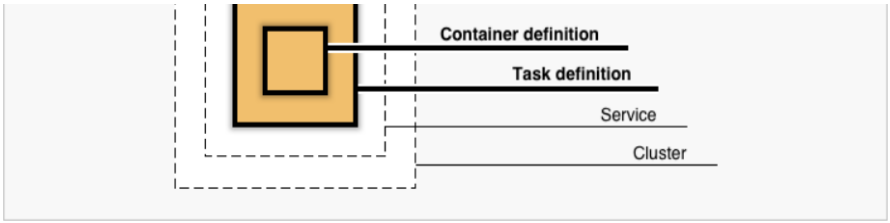
PRE-REQUISITE :

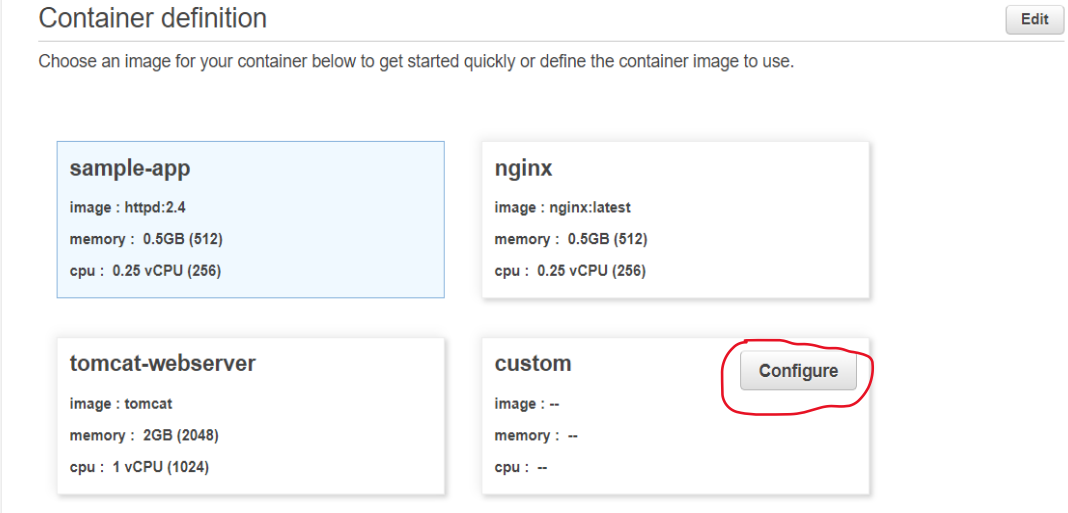
- Create a docker image for dashboard application following the steps mentioned in the 'Docker-Dashboard' Readme.md file.
- Upload the docker image in AWS ECR.

STEPS TO HOST THE APPLICATION IN AWS FARGATE

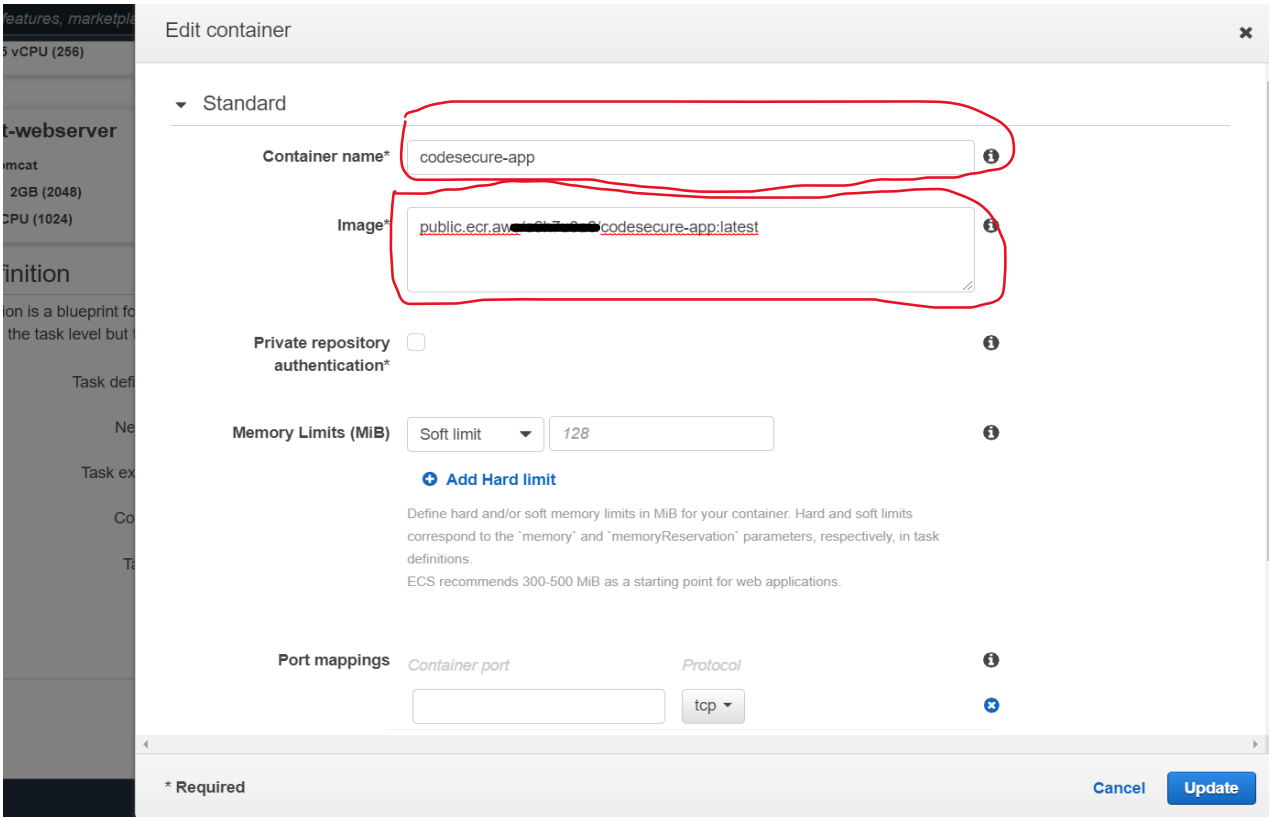
- Deploy the Docker Container using ECS
  The Elastic Container Service (ECS) runs and manages Docker containers. It is highly scalable, allowing more containers to be deployed automatically to meet demand. Return to the home page of the AWS management console and search for "ECS". Once in ECS, let's click on the Get Started button. You will be taken to Step 1: Container and Task. The container definition describes the requirements of your container as well as how the system should run your container. By clicking on the Configure button, we can configure the container to accommodate the dashboard app.



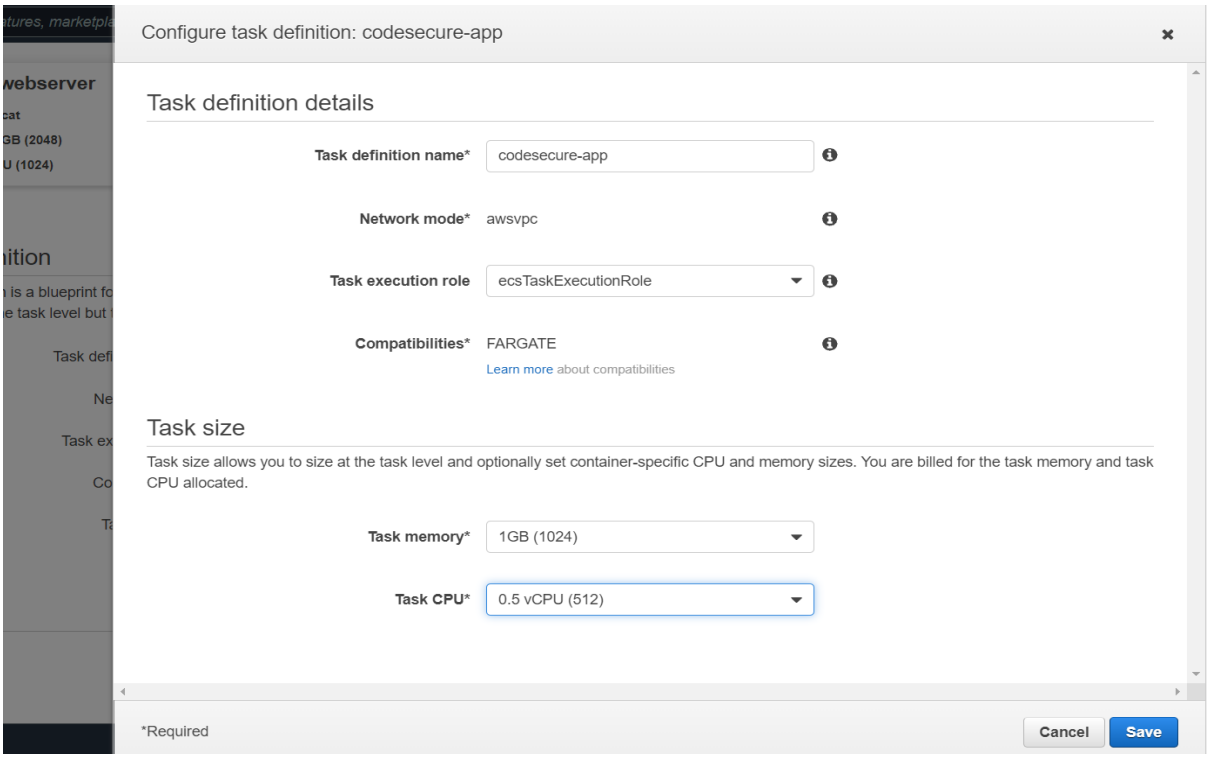




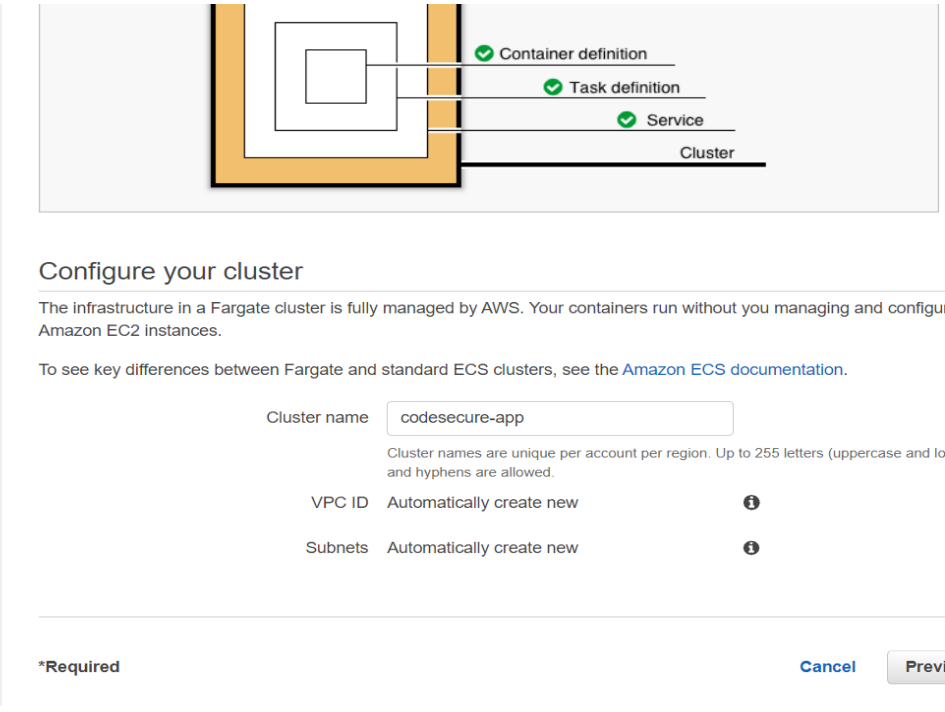
We only need to populate the first two fields. We name the container codesecure-app and we populate the second field with the Image URI from AWS ECR of the dashboard docker image. Click on Update.

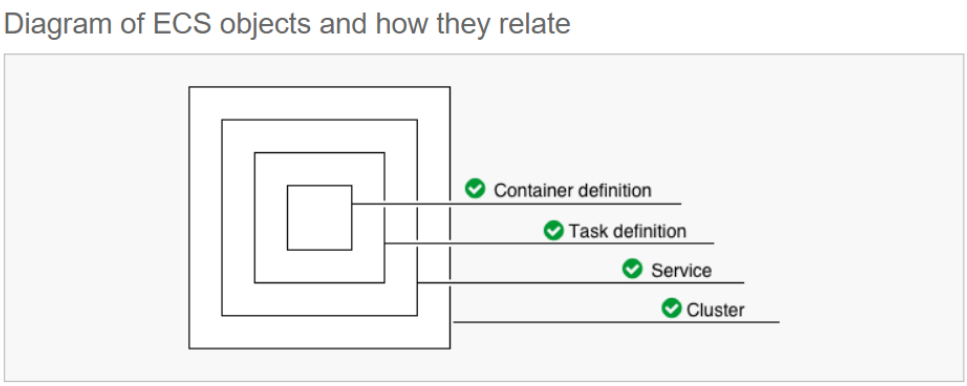


Scroll down to the Task Definition and click Edit. Here, we can specify the hardware requirements for the container. We populate these fields as below and Save.



When we click on Next, we are taken to the Service Definition page. These fields are pre-populated, so click on Next to go to the Cluster definition. All we need to do here is name the cluster codesecure-app" and click Next. You can then review the configuration and click Create.





Review

Review the configuration you've set up before creating your task definition, service, and cluster.

Task definition

Edit

Task definition name	codesecure-app
Network mode	awsvpc
Task execution role	Create new
Container name	codesecure-app
Image	public.ecr.aws/[redacted]esecure-app:latest
Memory	1024
Port	-
Protocol	HTTP

Service

Edit

Service name	codesecure-app-service
Number of desired tasks	1

Cluster

Edit

Cluster name	codesecure-app
VPC ID	Automatically create new
Subnets	Automatically create new

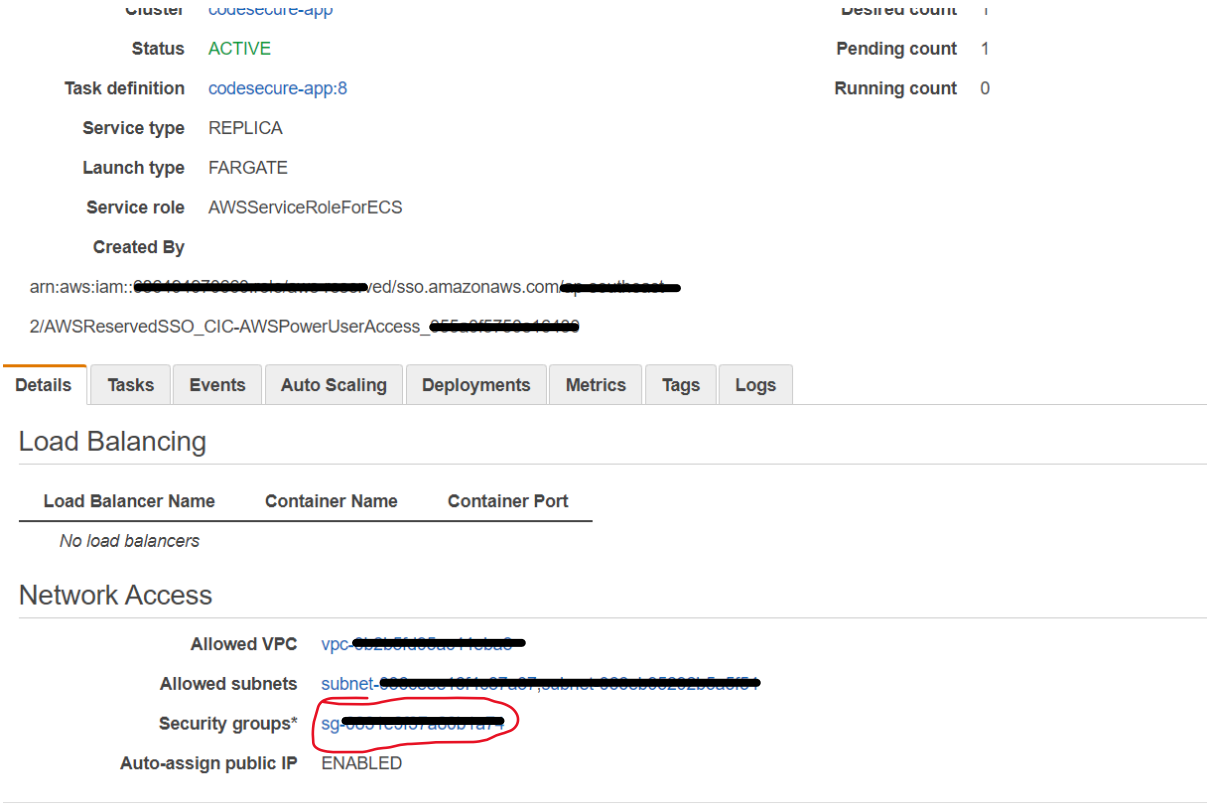
*Required

Cancel Previous Create

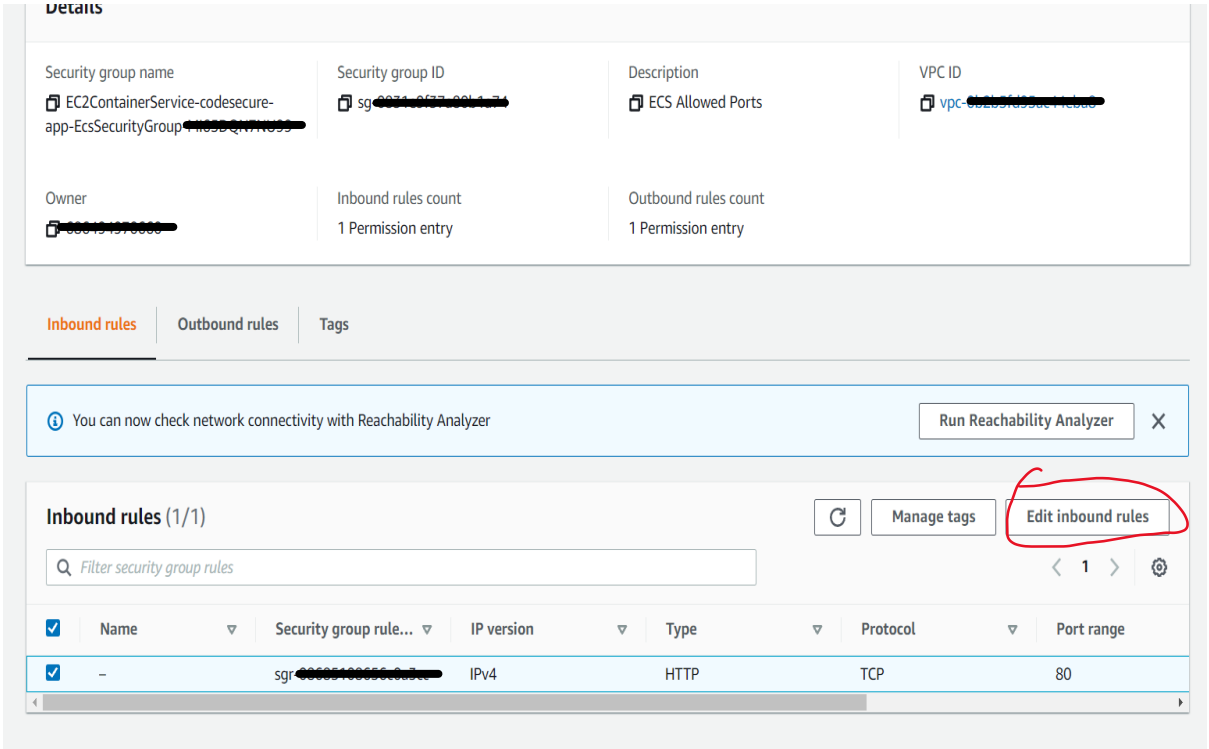
The process will take a good few minutes. Once completed, click View Service.

- Accessing the Dashboard Service

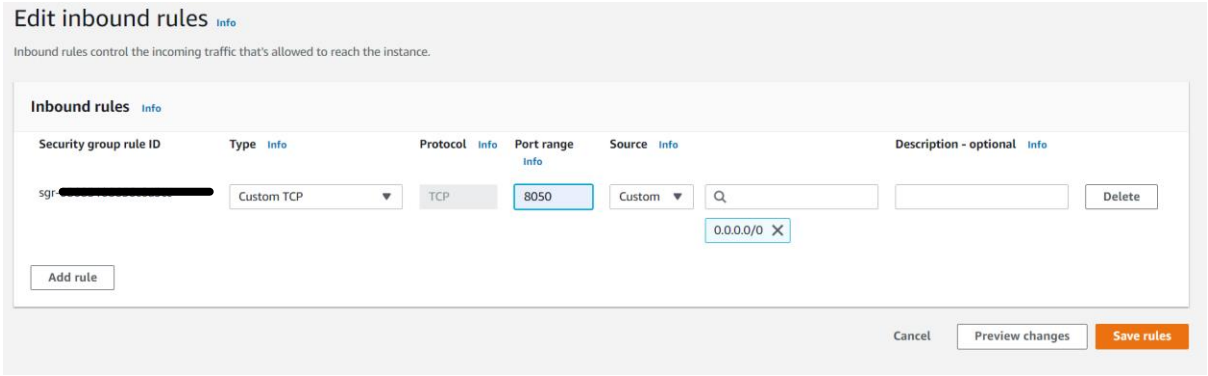
  By default, the service will only allow traffic on port 80. This is a problem as the Docker container is only accessible on port 8050. We thus need to change the Security groups rules. Click on the Security groups identifier



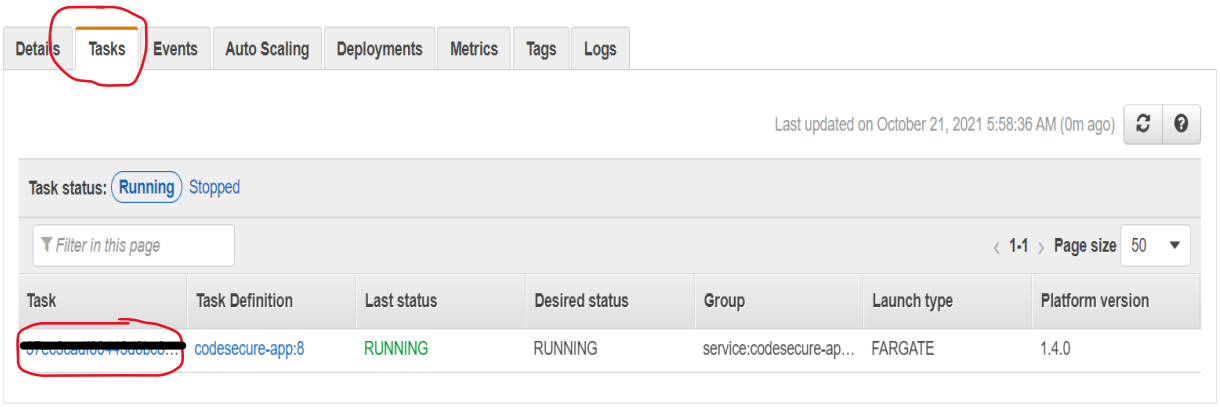
Once the page loads, click on Inbound Rules tab and the Edit inbound rules button.



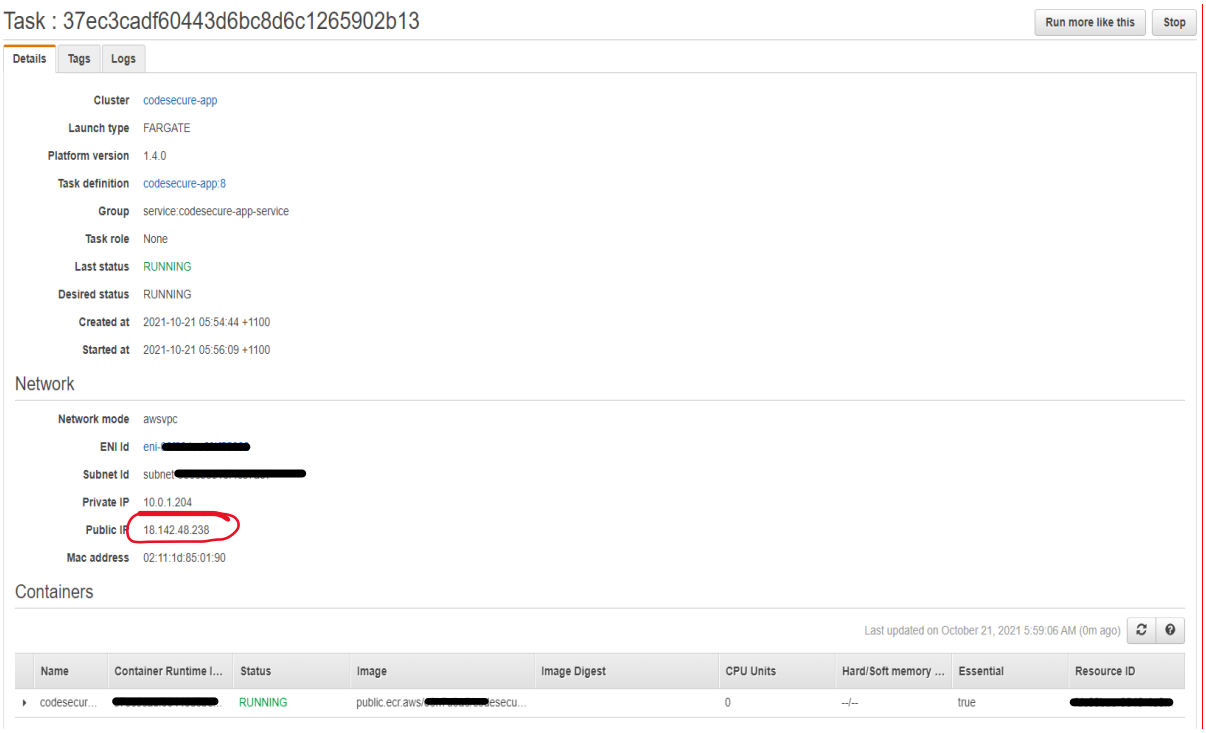
Re-populate the fields as follows before clicking on Save rules.



We can check if the service is running by clicking on Clusters in the ECS sidebar and clicking on codesecure-app . Once the page loads, click on the Tasks tab and subsequently click on the task identifier.



The task configurations will be shown.



We can see that the task is running and is accessible at the address http://18.142.48.238:8050 . Of course, your IP will be different. Substitute your IP in place of the above IP and you should be able to access your dashboard.